

We Claim:

1. (Amended) A method of manufacturing a metallic current collector for use in an electrochemical [of] or galvanic cell, comprising the steps of:

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(i) perforating a solid, flat metal strip using a continuous process that results in deformation of the strip at least locally near the perforations; and

(ii) Immediately following step (i), annealing the perforated strip at a temperature below the melting point of said metal or metal-alloy to yield a recrystallized microstructure therein.

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2. A method according to claim 1, wherein said recrystallized microstructure contains a minimum of 50% special grain boundaries.

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3. A method according to claim 1, wherein said continuous process is a process of reciprocating expansion.

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4. A method according to claim 1, wherein said continuous process is a process of rotary expansion.

5. A method according to claim 1, wherein said continuous process comprises punching perforations through said metal strip.

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6. A method according to claim 1, wherein said metal is selected from lead or a lead alloy.

7. A method according to claim 2, wherein said metal is selected from lead or a lead alloy.